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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/520,859

10/03/2005

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EXAMINER

WON, BUMSUK

ART UNIT

PAPER NUMBER

2879

MAIL DATE

DELIVERY MODE

05/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/520,859

Applicant(s)

NAKANISHI ET AL.

Examiner

Bumsuk Won

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-13 is/are rejected.
- 7) ☒ Claim(s) 8 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/10/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: Low pressure mercury lamp having a double spiral arc tube and method for assembling the same.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 and 10-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Watson (5,675,215) which is a prior art cited in the IDS.

Regarding claim 1, Watson discloses a lamp (figures 2 and 3) comprising:

an arc tube (32) whose one end (34) is wound around an axis (I) entirely in a longitudinal direction thereof; and

a holding member (36) that holds the arc tube in a state where the end is inserted in an opening (54) formed in the holding member,

wherein the holding member (36) includes an insertion guiding unit (50) for guiding the end of the arc tube (32) to be inserted into the opening.

The examiner notes that the claim limitation of "for guiding the at least one end ... to be attached to the holding member" is drawn to a process of manufacturing which is

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incidental to the claimed apparatus. It is well established that a claimed apparatus cannot be distinguished over the prior art by a process limitation. Consequently, absent a showing of an unobvious difference between the claimed product and the prior art, the subject product-by-process claim limitation is not afforded patentable weight (MPEP 2113).

Regarding claim 2, Watson discloses the insertion guiding unit (50) is formed as a groove (50) extending in a direction in which the end of the arc tube is wound around the axis.

Regarding claim 3, Watson discloses in figures 2 and 3, and column 5, line 66 to column 6, line 3, a part of the groove that comes in contact with a part of the end of the arc tube has a shape corresponding to a shape of the part of the end of the arc tube.

Regarding claim 4, Watson discloses the arc tube (32) includes a pair of lead wires (48) for an electrode (38) extending from the end of the arc tube, the opening (54) opens toward a direction of the axis, and the holding member (36) allows the pair of the lead wires (48) to be inserted in the opening (54).

Regarding claim 5, Watson discloses in column 5, line 53, the opening is formed at an angle of 20-40 degrees inclusive with respect to the axis.

Regarding claim 10, Watson discloses the arc tube including a pair of lead wires (48) for an electrode (38) extending from the end of the arc tube, and the holding member (36) includes a supporting unit (46) for supporting the pair of lead wires while keeping a certain distance between the lead wires.

Regarding claim 11, Watson discloses the arc tube includes a glass tube includes a glass tube (32) that is turned at a substantially middle thereof and wound around the axis from the middle, to have a double spiral structure (figure 2).

Regarding claim 12, Watson discloses a method for assembling a lamp (figures 2 and 3) having an arc tube (32) and a holding member (36), including the steps of: making

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an end (34) of the arc tube come in contact, at a peripheral surface thereof, with the insertion guiding unit of the holding member (figure 3); and rotating, in a state where the end of the arc tube is in contact with an insertion guiding unit (50), the arc tube, and the holding member around the axis (I), so that the arc tube has a relative position with respect to the opening the of holding member (figure 2).

Regarding claim 13, Watson discloses the arc tube has a pair of lead wires (48) for an electrode (48) extending from the end of the arc tube, the opening (54) opens toward a direction of the axis (upwards seen from the figures 2 and 3), and the step of making the end of the arc tube comes in contact with the insertion guiding unit (50) of the holding member (36) is carried out in a state where the lead wires are parallel to the direction of the axis (figure 2, lead wires 48 is in parallel with axis I).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watson in view of Greiler (5,731,656).

Regarding claim 6, Watson further discloses the holding member (36) includes a covering unit (40 and 42) that is formed so that the opening is positioned at an edge of the covering unit, the covering unit covering the end of the arc tube (figure 2).

Watson does not disclose the opening partially formed by a notch created in the covering unit and/or the insertion guiding unit.

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Greiler discloses a lamp having an opening with a notch (column 2, lines 43-60), for the purpose of properly fitting the arc tube to the base.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have an opening with a notch as disclosed by Greiler in the lamp disclosed by Watson, for the purpose of properly fitting the arc tube to the base.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Watson in view of Bankuti (2002/0105255).

Regarding claim 7, Watson discloses all the claim limitation except for the end of the arc tube is being bonded within the holding member via a bonding agent.

Bankuti discloses a lamp (figure 1) having an arc tube (2 and 3) with ends (4) being bonded within holding member (5) via bonding agent (paragraph 20), for the purpose of sealing the gas inside.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the end of the arc tube is being bonded within the holding member via a bonding agent as disclosed by Bankuti in the lamp disclosed by Watson, for the purpose of sealing the gas inside.

Allowable Subject Matter

Claims 8 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 8, the prior art of record does not teach or suggest the invention of a low pressure mercury lamp having an insertion guiding unit including one or more inlets for injecting a bonding agent in an area between the end of the arc tube placed in the

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holding member and the insertion guiding unit of the holding member, along with other claimed limitations.


Regarding claim 9, the prior art of record does not teach or suggest the invention of a low pressure mercury lamp having a holding member including a wall at an internal surface thereof for preventing the bonding agent from flowing outside, along with other claimed limitations.


Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bumsuk Won whose telephone number is 571-272-2713. The examiner can normally be reached on Monday through Friday, 8:00 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Bumsuk Won
Patent Examiner


Joseph Williams
Primary Examiner